1099-91 **Treatment and Outcome of Diabetic Patients With Stable Angina and First Angiographic Diagnosis of Coronary Artery Disease in Germany: Results of the STAR Registry**

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Background: In diabetics coronary artery disease (CAD) contributes considerably to mortality in Germany. Little information exist on the extent of CAD in diabetic patients (pts) with stable angina pectoris (AP) as well as their treatment and outcome in clinical practice.
Methods: Between September 2001 and March 2003, consecutive pts with stable AP and first angiographic diagnosis of CAD were enrolled into the STAR-Registry in 53 hospitals. We examined the differences between pts with and without diabetes as well as the impact of diabetes on treatment and outcome.
Results: Diabetics with stable angina and first angiographic diagnosis of CAD were older and more often had concomitant diseases than non-diabetics. Three-vessel disease was more prevalent in diabetics than in non-diabetics. Diabetics did undergo PCI significantly less often. According to the higher prevalence of multivessel disease, diabetics underwent CABG more often during the 1-year follow-up. Diabetics received the combination of ASS, statins, betablockers and ACE-inhibitors as well as symptomatic treatment with nitrates more often than non-diabetics.

	Diabetics N=518	Non-Diabetics N=1435	p-value
Age (years)	69	66	<0.01
Male Gender	64.1 %	72.3 %	<0.01
Hypercholesteremia	73.4 %	66.3 %	<0.01
Hypertension	83.4 %	70.3 %	<0.01
Atrial fibrillation	8.3 %	7.0 %	ns
3-Vessel-Disease	30.7 %	24.2 %	<0.01
PCI	38.4 %	48.4 %	<0.01
Statin+BB+ACE+ASS	42.5 %	35.1 %	<0.01
Nitrates	35.3 %	27.9 %	<0.01
1-Year-Complications			
Death	7.5 %	2.7 %	<0.01
Nonfatal MI	2.1 %	2.4 %	ns
Nonfatal Stroke	1.9 %	1.4 %	ns
Re-PCI	19.4 %	20.5 %	ns
CABG	31.1 %	24.9 %	<0.01
Hospitalisation for UA	27.8 %	29.3 %	ns

Conclusion: Diabetics with stable angina and first angiographic diagnosis of CAD more often presented with multivessel disease. Diabetics did undergo PCI for stable angina significantly less often than non-diabetics, but were more often treated by CABG during 1-year follow-up. Mortality in diabetics after one year of follow-up was 3 times higher than in non-diabetics.

1099-92 **Coronary Artery Aneurysms Are an Independent Predictor of High Five-Year Mortality**

Timir Baman, Jason H. Cole, Chandan Devireddy, Laurence S. Sperling, Emory University, Atlanta, GA

Background: Coronary aneurysms may be incidentally seen on cardiac catheterization. However, outcomes in patients with aneurysms have not been well defined because of the small size and limited follow-up in published series. **Methods:** Patients with coronary aneurysmal disease, defined as dilatation >2.0 times the diameter of adjacent normal segments, were identified from all patients who underwent diagnostic coronary angiography at Emory University Hospitals between 1995 and 2002. Cath films were then reviewed, and aneurysm size and location were confirmed. Coexisting cardiac risk factors and follow-up mortality data were obtained on all patients. Controls presenting during the same period were selected by 2:1 frequency matching on the basis of obstructive CAD (>70% stenosis in one or more vessels). Kaplan-Meier survival curves were plotted for aneurysm patients with and without obstructive CAD, and compared with the log-rank test. A Cox proportional hazards model was developed to evaluate correlates of mortality. **Results:** 276 patients were identified; 186 (70.5%) were also found to have obstructive CAD. Compared with controls, aneurysm patients were less likely to be diabetic (18.1% vs. 26.1%, p=0.01) or current smokers (12.7% vs. 18.7%, p=0.03), but were more likely to be male (82.9% vs. 60.4%, p<0.001) or hyperlipidemic (55.3% vs. 43.8%, p=0.002). Frequency of hypertension did not differ significantly between groups. No association was found between aneurysm size and survival or any cardiac risk factor. Unadjusted 5-year survival was 71.2%, with no significant difference for aneurysm patients with and without obstructive CAD (71.9% vs. 67.9%, p=0.77). In the Cox model, aneurysm was a significant predictor of mortality (HR 1.62, 95% CI 1.29 to 2.02), as were diabetes (HR 1.83), obstructive CAD (HR 1.71), and hyperlipidemia (HR 1.73). **Conclusions:** In an unselected adult population, coronary aneurysms are variably associated with traditional cardiac risk factors and are an independent predictor of significant 5-year mortality. Clinicians should work to aggressively modify coronary risk factors in aneurysm patients with and without coexisting obstructive CAD.

ORAL CONTRIBUTIONS

826FO

Featured Oral Session...Novel Markers Affecting Myocardial Infarction

Monday, March 08, 2004, 4:00 p.m.-5:30 p.m.
Morial Convention Center, Room 207

4:15 p.m.

826-2 **Interleukin-6 but Not C-Reactive Protein Is Elevated at the Site of Ruptured Plaques in Acute Coronary Syndromes**

Lukas A. Altwegg, Roberto Corti, Arnold von Eckardstein, Friedrich Maly, Gabor Sütsch, Marco Roffi, Franz R. Eberli, Lukas Bestmann, Bernd van der Loo, Thomas F. Lüscher, Willibald Maier, University Hospital Zürich, Zürich, Switzerland

Background: Plaque rupture in acute coronary syndromes (ACS) has been shown to be associated with an increased inflammatory activity. However, it remains unclear to what extent markers of inflammation originate from the site of the plaque rupture or represent a systemic process. Therefore, we analyzed in patients undergoing acute percutaneous coronary interventions (PCI) blood from the aorta and from the site of the ruptured coronary plaque under exclusion from the systemic circulation.
Methods: In 41 patients with ACS a balloon-based protection device (PersuSurge™) was used to provide protection of the microcirculation from distal embolization. Samples from the site of the ruptured plaque were taken using an aspiration catheter under distal balloon occlusion after the first successful crossing of the lesion in 17 left coronary, 2 circumflex and 22 right coronary arteries. Solid material (thrombus and plaque particles) was separated by means of a filter. The remaining blood was analyzed for CRP and IL-6 and compared with samples simultaneously taken from the aorta. Measurements are expressed as the ratio between the concentrations in the culprit vessel and the aorta.
Results: Both total CRP (7.0±2.3mg/l) and Il-6 levels (5.5±2.3ng/l) were systemically elevated in this group of patients with ACS. In relation to aortic concentrations, IL-6 levels were markedly higher (+252%, p=0.001) at the site of the ruptured plaque, whereas CRP levels were significantly lower (-12%, p=0.001) compared to the aorta.
Conclusion: Patients with ACS show systemically elevated levels of inflammatory markers (CRP and IL-6). In the culprit vessel, IL-6 levels are higher in comparison to the aorta, while CRP-levels are significantly lower. This may reflect either CRP consumption or uptake in a compartment with local stasis separated from the circulation by the coronary occlusion and suggests that systemic elevation of CRP is an indicator of a generalized inflammatory process. In contrast, IL-6 seems to be locally released. These findings impact on current concepts of the pathogenesis of plaque rupture and myocardial infarction.

4:30 p.m.

826-3 **Early Elevation of C-Terminal Telopeptide of Type I Collagen Is Highly Correlated With 30-Day Mortality in Patients With Myocardial Infarction Regardless of Infarct Localization**

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Background: Prognosis after acute myocardial infarction (AMI) is related to infarct size and localization. We related increased serum levels of c-terminal telopeptide of type I collagen (ICTP), a marker of type I collagen degradation, to 30 day all-cause mortality and infarct localization in patients following complicated AMI.
Methods: Serum from 233 patients in the OPTIMAAL trial which included patients following AMI, with heart failure and/or left ventricular dysfunction was sampled at randomization (mean 3 days after index MI).
Results: Mean ICTP for all patients was 4.9(±2.7) µg/l. Within 30 days after AMI, 14 patients died. Non-survivors had significantly higher ICTP levels than those who survived (mean 8.6(±5.1) vs. 4.7(±2.2) µg/l, p<.0001). Patients above and below mean ICTP had a mortality rate of 15% (n=13/84) and 0.7% (n=1/149) respectively (p<.0001) (fig.). There were no statistically significant differences in ICTP-levels with respect to infarct localization.
Conclusion: Increased serum-levels of ICTP are strongly associated with increased short-term mortality following complicated AMI. ICTP may help to stratify patients with AMI into high and low risk groups for short-term mortality independent of infarct localization.